cohorting strategies and minimize RV during allo-HSCT. The impact of RVI screening on respiratory-related NRM was assessed.

Method: Consecutive allo-HSCT patients (pts) experiencing NRM between 1/00 – 1/14 were identified from a prospectively maintained database. NRM episodes were assessed pre- and post-RVI screening and an etiology assigned following medical record review and treating physician determination. RVI were identified in symptomatic pts from nasal/pharyngeal swabs or bronchoalveloar lavage specimens using PCR or immunofluorescence.

Results: 204 allo-HSCT were evaluated, 118 pre- and 86 post-RVI screening. For the entire cohort: male:female ratio was 1.4:1, median age 52 (17-71) years, median follow up 24.2 (2.4-154) months. Most common pre-HSCT diagnoses were myeloid malignancies (43%), NHL (22%) ALL (12%). 3 year DFS and OS was 50.7% and 59.6%. There were no significant differences between study cohorts. There was a significant difference between pre-RV and post-RV cohorts in conditioning intensity (MA 46% vs 19%, NMA 53% vs 81%, $p<0.01$), donor source (MS 71% vs 29%, MUD 0 vs 44%, $p<0.01$) and TBI-based conditioning (20% vs 51%, $p<0.01$) reflecting changes in departmental practice. Most common RVI's were rhinovirus (40%), RSV (30%), parainfluenza (20%) and coronavirus (10%).

Overall NRM was 24.5%.Pre- and post-RVI screening NRM was 22.9% and 26.7% ($p=0.53$). 12/26 (46%) NRM events were respiratory-related pre-RVI vs 6/24 (25%) post-RVI (RR 0.54, 95%CI 0.24-1.22, $p=0.14$). Post-RVI screening, viral pneumonitis was the cause of respiratory death in 2/5 pts (1=RSV, 1=rhinovirus).

Conclusion: Respiratory-related deaths represent a significant NRM burden post allo-HSCT. RVI screening may impact on respiratory-related NRM in allo-HSCT.

417

Graft Versus Host Disease Prophylaxis with a Bortezomib-Based Regimen without G-CSF Support for Patients Undergoing MUD Transplant: Evaluation of Engraftment Kinetics and Transplant Outcomes

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Background: The proteasome inhibitor Bortezomib has been successfully used to prevent the development of graft-versus-host disease (GVHD) in recipients of matched unrelated donor (MUD) or mismatch related donor (mMRD) allogeneic HSCT. We sought to evaluate the efficacy of this agent in our patient population and assess its impact on neutrophil engraftment when G-CSF support was not routinely utilized.

Methods: We conducted a retrospective review of patients (pts) with hematologic malignancies who underwent MUD allogeneic HSCT at our institution and received GVHD prophylaxis with bortezomib (dose 1.3 mg/m^2) administered on days +1, +4, and +7 after stem cell infusion, in addition to standard prophylaxis with tacrolimus and methotrexate. Since our first treated patient developed hyper-acute GVHD, standard G-CSF support was omitted and reserved only for pts with severe sepsis or delayed engraftment.

Results: Twenty-one MUD recipients receiving bortezomib-based GVHD prophylaxis were transplanted at our institution between 2012 and 2014. Median age was 51 years (range: 34-62 yrs); male to female ratio 2:1. Indications for transplantation included: AML (11/52.4%), ALL (6/28.6%), MPN (2/9.5%) CLL (1/4.8%) and NHL(1/4.8%). Graft source was mobilized peripheral blood stem cells for all pts. Seven pts (33.3%) received a myeloablative conditioning regimen, whereas 14 pts (66.7%) received a reduced-intensity regimen. Median donor chimerism at days +30 and +100 was 98.5% (range 70-99%) and 98% (range 81-99%) respectively. Median time for neutrophil engraftment was 14.38 days +/- 1.86. Cumulative incidence of grade III-IV aGVHD at day +100 was 14.3%. Non-relapse mortality (NRM) at day +100 was 9.5% and the cumulative incidence of relapse was 4.8% at day +180 and 19% at 1 year.

Conclusions: Bortezomib-based GVHD prophylaxis resulted in acceptable rates of acute GVHD and non-relapse mortality; our results are encouraging and similar to those available in the current literature. The use of bortezomib did not result in delayed engraftment or graft failure (when compared to historical controls) even when standard growth factor support was omitted in patients undergoing MUD transplant.

418

Long-Term Outcomes of Allogeneic Hematopoietic Stem Cell Transplantation with Intensified Myeloablative Conditioning for Refractory Hematologic Malignancies

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Prognosis after allogeneic hematopoietic stem cell transplantation (SCT) in patients with relapsed or refractory hematologic malignancies at the time of SCT is poor due to the increased risk of relapse or TRM. Several intensified conditioning regimens have been reported, however, long term outcome after 5 years was not clarified. This study is aimed to evaluate the long term outcome of SCT with intensified conventional myeloablative conditioning regimen.

We retrospectively analyzed a total of 59 adult patients with advanced hematologic malignancies including refractory AML(n=32), CML with blastic crisis (n=14), refractory ALL (n=8) and others (n=5) who received allogeneic SCT with intensified myeloablative conditioning regimen of busulfan (BU) 8mg/kg + cyclophosphamide 120mg/kg + TBI 10Gy (n=20), melphalan (MEL) 180mg/m^2 + BU 8mg/kg + TBI 10Gy (n=32) or MEL180 mg/m^2+ TBI 10Gy (n=7) from January 1994 to December 2003 in our institution. GVHD prophylaxis consisted with tacrolimus or cyclosporine and short courses of methotrexate.

The median follow-up of the surviving patients was 8.3 years (0.1-18.8). Median age at transplant was 36 (17-54). Fifty-one patients received BM, 4 received PBSC, 1 received both and 3 received CB; 18 from a matched related donor, 15 from a matched unrelated donor, 7 from a mismatched related donor and 19 from a mismatched unrelated donor. Rejection was observed in only 1 patient. A total of 44.6% and 23.2% of evaluable patients had grade II-IV and grade III-IV acute GVHD, respectively and 57.9% of evaluable patients experienced extensive chronic GVHD. Overall survival and disease-free survival at 5 years was 31.5% and 29.7%, whereas that at